

**ABSTRACT OF THE DISCLOSURE**

5 A data processing system 2 is described having a central processing unit 4 and  
a diagnostic mechanism 10. The central processing unit 4 is switchable into a power-  
down mode from which it may resume into a normal operation mode. When the  
central processing unit 4 resumes into the normal operation mode, execution of  
program instructions is inhibited by the diagnostic mechanism 10 to allow the  
diagnostic mechanism to be appropriately programmed such that the immediate  
10 power-up code and operations can be properly diagnosed. The requirement to prevent  
program instruction execution on power-up is programmed by writing to a latch 16  
within the diagnostic mechanism 10 prior to the power-down. The prevention of  
program execution may be achieved, for example, by generation of a halt request or  
by extending the time period for which the central processing unit 4 is held in reset  
15 following power-up.

[Figure 3]